REMARKS

In the Final Official Action dated March 6, 2007, Claims 11, 13 and 15 are pending and under consideration on the merits. Claims 11 and 15 are rejected under 35 U.S.C. 102(e) as allegedly anticipated by Ghosh et al. (U.S. Patent No. 6,268,398) with evidence by Lang et al. (U.S. Patent Publication 2005/0064501). Claims 11, 13 and 15 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ghosh and in view of Thiam et al. (*FEBS Letter*, 459:285-90, 1999) with evidence by Lang et al.

This Response addresses each of the Examiner's rejections. Applicants therefore respectfully submit that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

Before addressing the rejections raised by the Examiner, Applicants have amended Claims 13 and 15 in an effort to favorably advance prosecution of the present application. Claim 13, as amended, incorporates the language of its base claim as previously submitted and now becomes an independent claim. Support for the amendment to Claim 13 is found in previously presented Claim 11. Claim 15 is amended to further depend upon Claim 15. No new matter is introduced by the amendment to Claims 13 and 15.

Claims 11 and 15 are rejected under 35 U.S.C. 102(e) as allegedly anticipated by Ghosh et al. (U.S. Patent No. 6,268,398) with evidence by Lang et al. (U.S. Patent Publication 2005/0064501).

The Examiner alleges that Ghosh et al. teach a method of administering chelerythrine as a kinase inhibitor for therapy of certain diseases, such as Alzheimer's disease, diabetes mellitus, neuropathy, epilepsy, stroke and traumatic injury to brain. (Emphasis added). The Examiner appears to admit that Ghosh et al. do not teach a method of causing amnesia in an

animal. However, the Examiner alleges that the above-listed diseases would have pain syndrome associated with the diseases and the administration of chelerythrine inherently has the amnesiac effect.

The Examiner alleges that Lang et al. teach that the chelerythrine suppresses the activation of the Na+ channel. The Examiner also alleges that Lang et al. teach treatment of epileptic seizures with kinase inhibitors. The Examiner further alleges that Lang et al. teach diagnosing many diseases including those encompassed by the method of the present invention.

In the first instance, Applicant observes that the reference to Ghosh et al. is directed to compositions and methods for treatment of certain mitochondria-associated diseases such as cancer, psoriasis, stroke, Alzheimer's disease and diabetes. Nowhere do Ghosh et al. disclose a method of causing amnesia in an animal.

Additionally, Applicants observe that Ghosh et al. teach that "[d]efective mitochondrial activity . . . may result in . . . (iv) the release of factors . . . that initiate or stimulate the apoptosis cascade." See col. 1, lines 44-55. Ghosh et al. teach that "[a] number of diseases and disorders are thought to be caused by or be associated with alterations in mitochondrial metabolism and/or inappropriate induction or suppression of mitochondria-related functions leading to apoptosis." See col. 1, lines 56-59. (Emphasis added). Ghosh et al. teach that "theories have been advanced for . . . relationships between mitochondrial defects and other neurological diseases, including Alzheimer's disease . . . Mitochondrial dysfunction is thought to be critical in the cascade of events leading to apoptosis in various cell types . . . and may be a cause of apoptotic cell death in neurons of the AD brain." See col. 4, lines 30-32 and col. 5, lines 5-8. (Emphasis added). Thus, Applicants respectfully submit that Ghosh et al. teach that Alzheimer's disease may be caused by apoptotic cell death.

However, Applicants also observe that Ghosh et al. teach that "[w]hereas mitochondria-mediated apoptosis may be critical in degenerative diseases, it is thought that disorders such as cancer involve the unregulated and undesirable growth (hyperproliferation) of cells that have somehow escaped a mechanism that normally triggers apoptosis in such undesirable cells." See col. 7, lines 54-57. (Emphasis added). Ghosh et al. teach that "[t]here is also a need for compounds and methods that limit or prevent damage to cells and tissues that occurs directly or indirectly as a result of necrosis and/or inappropriate apoptosis. In particular, because mitochondria are mediators of apoptotic events, agents that modulate mitochondrially mediated pro-apoptotic events would be especially useful." See col. 8, lines 33-38. Ghosh et al. further teach that "[a]poptosis and/or biochemical processes associated with apoptosis may also be using one or more "apoptogens," i.e., agents that induce apoptosis and/or associated processes when contacted with or withdrawn from cells or isolated mitochondria. Such apoptogens include . . . (6) protein kinase inhibitors, such as, . . . Chelerythrine chloride . . . ." See col. 22, lines 18-35. (Emphasis added). Applicants observe that the only time Ghosh et al. refer to chelerythrine is quoted as above, where the reference teaches chelerythrine as an inducer of apoptosis. Thus, Applicants respectfully submit that contrary to the Examiner's allegation, Ghosh et al. do not teach chelerythrine as a kinase inhibitor for therapy of certain diseases, such as Alzheimer's disease. Applicants submit that, in fact, Ghosh et al. suggest that chelerythrine can cause Alzheimer's disease because it is an inducer of apoptosis. If anything, Ghosh et al. teaches away from the claimed invention.

In view of foregoing, contrary to the Examiner's allegation, Applicants submit that Ghosh et al. do not teach a method of administering chelerythrine as a kinase inhibitor for therapy of certain diseases, such as Alzheimer's disease, diabetes mellitus, neuropathy, epilepsy,

stroke and traumatic injury to brain. Thus, the evidence, if any, provided by Lang et al. is useless even assuming, *arguendo*, it could demonstrate the inherent effect of chelerythrine because the cited prior art does not teach chelerythrine for treatment of the cited diseases.

Therefore, the rejection of Claims 11 and 15 under 35 U.S.C. §102(e) as allegedly anticipated by Ghosh et al. as evidenced by Lang et al. is overcome and withdrawal thereof is respectfully requested.

Claims 11, 13 and 15 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Ghosh and in view of Thiam et al. (*FEBS Letter*, 459:285-90, 1999) with evidence by Lang et al.

Applicant respectfully submits that Thiam et al. merely teach that the distribution of palmitoylated modified PKC-ζ pseudosubstrate lipopeptides is possibly correlated with a selective induction of apoptosis. Nowhere do Thiam et al. teach a method of causing amnesia or decreasing synaptic transmission by administering a therapeutically effective amount of a PKM-ζ inhibitor, as claimed.

Applicant submits Ghosh et al. do not teach or suggest the method of the present invention as discussed above. Indeed, as discussed above, Ghosh et al. teach that mitochondrial dysfunction is thought to be critical in leading to apoptosis in various cell types . . . and may be a cause of apoptotic cell death in neurons of the Alzheimer's disease brain. Applicants submit that Ghosh et al. lead the skilled artisan away from the invention by disclosing that chelerythrine can cause Alzheimer's disease because it is an inducer of apoptosis. Thus, the primary reference to Ghosh et al. teaches away from the claimed invention and the secondary reference to Thiam et al. does nothing to ameliorate the deficiencies of Ghosh et al.

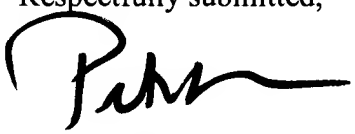
Applicant respectfully submits that since Ghosh et al. with evidence by Lang et al. is not a proper reference under § 102, the rejection under 35 U.S.C. § 103 based on Ghosh et al. as evidenced by Lang et al. cannot be sustained. In view of the above discussion, the combination of the cited art cannot achieve the present invention.

Moreover, Claim 13, as amended, no longer depends on Claim 11. Nowhere does the cited art teach or suggest Claim 13, as amended, which is directed to a method of causing amnesia or decreasing synaptic transmission in an animal suffering from a traumatic stress disorder, a phobia, a pain syndrome or epilepsy comprising the administration of a therapeutically effective amount of a PKMζ inhibitor to said animal, wherein said PKMζ inhibitor is myristolated zeta inhibitory pseudosubstrate peptide.

Therefore, the rejection of Claims 11 and 15 under 35 U.S.C. §103(a) as allegedly unpatentable over Ghosh et al. in view of Thiam et al. as evidenced by Lang et al. is overcome and withdrawal thereof is respectfully requested.

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



Peter I. Bernstein
Registration No. 43,497

Scully, Scott, Murphy & Presser, P.C.
400 Garden City Plaza, Ste 300
Garden City, New York 11530
(516) 742-4343
PIB/ZY:ab/dg